

SEQUENCE LISTING

<110> Godfroi, Edmond
Bollen, Alex
Leboulle, Gerard

<120> IDENTIFICATION AND MOLECULAR CHARACTERIZATION OF
PROTEINS, EXPRESSED IN THE IXODES RICINUS SALIVARY
GLANDS

<130> VANM229.001CP1

<140>

<141>

<150> PCT/BE00/00061

<151> 2000-06-06

<150> GB 9913425.6

<151> 1999-06-09

<160> 34

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 194

<212> DNA

<213> Ixodes ricinus

<400> 1

```
atacctttcca cttgtagccc ttccctcatcc gatatgggtga cggatgccat tgcatacctcg 60
tcgtggaaga ggtcctcttc taaataagac ccatccatat atgtgtgttt gcgaatgccg 120
tcgacgtagc tcttgactag aaactcgtcg gctaggacag aacttttctt caggtttagc 180
gtaatgtcct cggtt                                     194
```

<210> 2

<211> 607

<212> DNA

<213> Ixodes ricinus

<220>

<221> misc_feature

<222> (1)...(607)

<223> n = A,T,C or G

<400> 2

```
taccngggaa tccaaaacca atttttattg gaacttccac gtcttcttca aggcggtggc 60
acctctgcat ttatgaagtt cgtcttgga ttttattttt tgcttcttcc attgcrgaac 120
tcgcaaatgc acttcccgtg cttgtcgcat ttgcgcccaa aagcgcgatgg cattccttcc 180
ggcagattaa ctttttcaaa ttcacggttc tgaaccaata atagatcgtg gcaatgtttg 240
tgctgtttgc gatttgcaaa ccagctgtag ccaccattgg actcaaagg ggcgacaaca 300
tggcgcggaa ctgtgaaaaa caaattaagg ctncctttgta ataacgctag tcttggtacg 360
ccgttagagg tcgatgtcgc gcctcgcgat tgcaaagtca cttgcactta tcaagctcct 420
ggagaaaaat ggggtgcaacg gggggatcag cgtttggtact tgcaaacatt tgtggagacg 480
gtaaaccwgt atttcgcgga actcagatgc tccagcgtga agctcgtctt aataaaagtt 540
```

gtaaattcga gtatngatga agaactgaaa ttcgaggcat ttagaaacac cacgagaagc 600
agcgga 607

<210> 3
<211> 259
<212> DNA
<213> Ixodes ricinus

<400> 3
gatactacgc ctgaaaatga gtgtccatcg tcttcacata gtgccacatt gtaattggta 60
caagctccat tttcgtcagc gctgtttgtt atgctgccgc ctacttttcc ttgggcactc 120
cataagttaa accctgtcat tataagtgtg attgccgtat ctcggctgaa tgggttccat 180
ttttctctta aataatcacg tgtccatatt ccatgtattg tgttcatgag tatgtgattc 240
tcacgtata tcttcgcct 259

<210> 4
<211> 170
<212> DNA
<213> Ixodes ricinus

<400> 4
ccactcgaaa atggaggctt tgaaacattt cagtaccct gtgaactctg gctttgcaat 60
gtaacagcaa aaacacttac agttgaaggg tgcagtgtca gacgctatgg aagttgcatc 120
cacgagcacr accctgatta ctactggcca cggttgcrttc cgggtcgtcc 170

<210> 5
<211> 168
<212> DNA
<213> Ixodes ricinus

<400> 5
gtatgttacc atgtccaacc cggttattaa atacaccaag tcgtaggatt tgtaggcagc 60
tgcattgcc ttgacgtact ctctcaacgt tgccaaggac tcaggcccat aaatgtagtg 120
gggttgacct tgaactcttc gtaaaaagcg ttctttctcc gtcgtgag 168

<210> 6
<211> 247
<212> DNA
<213> Ixodes ricinus

<400> 6
ccgaamataa aacttagtct caccaatata cgtttgccata acgcgaagga acaggcacia 60
atatactacg agcacgacat tctcaagaac acggttcacg gactgtggac gagaattcac 120
tcaaaatata cgttccctga agatgagga attacactga taatgacagg gtttgattta 180
tgagtgccg atttaactgt aggcggcacc ataacaacaa gcgctgagaa aagcggagct 240
tgtacga 247

<210> 7
<211> 261
<212> DNA
<213> Ixodes ricinus

<220>
 <221> CDS
 <222> (1)..(258)

<400> 7
 atg cct ttt att ttc gtg gtg agc tta gtc att gtg gcc tgc atc gtg 48
 Met Pro Phe Ile Phe Val Val Ser Leu Val Ile Val Ala Cys Ile Val
 1 5 10 15
 gta gac aca gcc aac cac aaa ggt aga ggg cgg cct gcg aag tgt aaa 96
 Val Asp Thr Ala Asn His Lys Gly Arg Gly Arg Pro Ala Lys Cys Lys
 20 25 30
 ctt cct ccg gac gac gga cca tgc aga gca cga att ccg agt tac tac 144
 Leu Pro Pro Asp Asp Gly Pro Cys Arg Ala Arg Ile Pro Ser Tyr Tyr
 35 40 45
 ttt gat aga aaa acc aaa acg tgc aag gag ttt atg tat ggc gga tgc 192
 Phe Asp Arg Lys Thr Lys Thr Cys Lys Glu Phe Met Tyr Gly Gly Cys
 50 55 60
 gaa gga aac gaa aac aat ttt gaa aac ata act acg tgc caa gag gaa 240
 Glu Gly Asn Glu Asn Asn Phe Glu Asn Ile Thr Thr Cys Gln Glu Glu
 65 70 75 80
 tgc aga gca aaa aaa gtc tag 261
 Cys Arg Ala Lys Lys Val
 85

<210> 8
 <211> 86
 <212> PRT
 <213> Ixodes ricinus

<400> 8
 Met Pro Phe Ile Phe Val Val Ser Leu Val Ile Val Ala Cys Ile Val
 1 5 10 15
 Val Asp Thr Ala Asn His Lys Gly Arg Gly Arg Pro Ala Lys Cys Lys
 20 25 30
 Leu Pro Pro Asp Asp Gly Pro Cys Arg Ala Arg Ile Pro Ser Tyr Tyr
 35 40 45
 Phe Asp Arg Lys Thr Lys Thr Cys Lys Glu Phe Met Tyr Gly Gly Cys
 50 55 60
 Glu Gly Asn Glu Asn Asn Phe Glu Asn Ile Thr Thr Cys Gln Glu Glu
 65 70 75 80
 Cys Arg Ala Lys Lys Val
 85

<210> 9

<211> 292
 <212> DNA
 <213> Ixodes ricinus

<400> 9
 catcgmagcc atagtatat ttgcacttgt cttccgtttc gtcgtagtag gaccgattcc 60
 acattgtagt acaccagtca cttatatcct gcgggcggtg cttgcatttg tcctgaacaa 120
 atcttccaca gcgcttgcg cagccctcct gggaatagaa cgcgttctct cctccgcac 180
 tccatttgga atcatagaaa catctttcag tttgaatatt gtagcgataa taatcggat 240
 cagtttcttt gcatggtcct gggaggggtt tggcgcaggg gccgtattca gg 292

<210> 10
 <211> 270
 <212> DNA
 <213> Ixodes ricinus

<400> 10
 ggtaatagtt gtcaaattcc attaatgtat cctgaaatgt gaccatatct ttgtttcccc 60
 tgtaaaatct cataaaaggc tgtgtgtttt ccttaagaag tgtaacagcc acgatgggtca 120
 atctcacgga tggatgtgtg acacttttat atctcagggt tgccgacatt gccattacag 180
 ataaatagtt gataatttct ttcttggtat agttgtaagc agcgcatggt gttgcatcaa 240
 gcaccacatg cacttcaggc aatatggttt 270

<210> 11
 <211> 316
 <212> DNA
 <213> Ixodes ricinus

<400> 11
 agaaagcagt catattggcc atccacaggt cacaatggtt ctctccttga cctggcatcg 60
 ggattcgaag tatggtgcag ttcacgtagt tggaatacaa cacgaaatgt gttcgttggt 120
 acgccaatag gggttctcgc aaagaacata tcatttggag gaaggcgtag tccgtcgaga 180
 tatcccaaaa ctagggtttc attgcgtgcg aaccaactgc cccacttct gtatgtgtac 240
 tgtaaggagt rgttgaacgg ygtcctcttt ccataacct tgaagttttc aactgcaga 300
 ggattacctc tcaaaa 316

<210> 12
 <211> 241
 <212> DNA
 <213> Ixodes ricinus

<400> 12
 aaggtagcaa ggggtggtagg ctttcctcac aaagagtctg gcttccgtga taaccatatt 60
 cattcctcac cgtatacccg tcatccaacg tcaattgtgt tacaaggcag ataattgtcaa 120
 aatggctctg gtccctataa tagtcggata atgtagaaat cgctccatgt ggccaaatag 180
 atgttcctct ttcatactgt tttaacttta attgtaggtc cgcctcggtc tcgaggtatg 240
 t 241

<210> 13
 <211> 636
 <212> DNA
 <213> Ixodes ricinus

<220>
 <221> misc_feature
 <222> (1)...(636)
 <223> n = A,T,C or G

<400> 13
 ttccccnaat tggccttgcg anncttgcaa gtcgacncta gaggctccga agatggacag 60
 attgcgcatg aaatatttga aatcgagcag aatggtgatt ttaggagcga ttatattgtg 120
 ccaccagtt tgaaagtgca agaacgcaca gtggtttacc gtaacaagta caccagagtt 180
 cctgtaaatt ttaccgtcga agttgccatg ctgattgata agtatttata cwaggagttc 240
 aagaacgaga gccacatcgt accgtacctg gctatgatac tgactttgat aaatctgagg 300
 tatgccgaca cacatgacct gtacatccag tttcttctca cacaagtgtt cgtggggaaw 360
 wctggcgatc atatgggcca catgcccttc cgacgagcgt tcttggtcag gcgccggcat 420
 tatgcgcatg ttaggcccac tmacaccttc cacttgtaat tctcgttgtt tggatagtgt 480
 aagtgaggcc attgcatcag catcgtggaa gargccttcc tccaagtagg aaccgcccac 540
 ttaggtttgc tttcccaatc cgccaattta anttttaaaa aaaattcccc ccccaaaaat 600
 taattttttt taaaggtgga ttgtgatttc tccgtt 636

<210> 14
 <211> 432
 <212> DNA
 <213> Ixodes ricinus

<400> 14
 gatcccaaaa gtgcccctgg arcgacggtt acatcatgag ctacgtcata aacttcaaaa 60
 accacttcaa attttctccc tgctgtgtag aatcaattcg attcgtcgca cgagagcggg 120
 actgcctcta caaagtcaat gccaaaggatg ctgtaaaaag cctaatatct ctgcccggat 180
 ttaggataac gccaacgagt ttctgtcaat ttatgcatcc gctttaccgc ggtgtccata 240
 gcgataagaa agcaggtctg tccgattgctg tacagacgtg tagaacggcc aaaaatcgac 300
 gaggaggcta ccattcatggt attcacgcgg cacttgaagg ggttccttgc gacaagagaa 360
 accccaagaa ggctgcata aacgggaaat gcaccctcct taagagcatg cccacagaa 420
 cgtaccggga at 432

<210> 15
 <211> 466
 <212> DNA
 <213> Ixodes ricinus

<400> 15
 agggcgttct ttgcttyaca gggaacrgca tatggggcac gtgaccttcc aatgaccgct 60
 ccaaactctgg cataggttga aytgcgaagt cgtggcgcag caggcctycc acattcactc 120
 catcctcgtc ttttaggatg actgccgcca tttgttttgt atcgtggtac aggtgtttgt 180
 tatggtccga gccgtcgaca taagtattga ccaacgatcg gccgaatgat tacggctcac 240
 caaacacatc aaataccccc gtcaagtcaa gagctggaag cacaagcat agtatgtaca 300
 agataccctt ggaaatcttt cccgaagttc accttggtgt ggacagcaca tttgccaaag 360
 ctttttaatt tgacgtgtac aaagtaacgc gttacttcgc agtgcttaca aatgcggcta 420
 atcttaggta tgccagcttc gtatttccaa aagtacagct caggat 466

<210> 16
 <211> 377
 <212> DNA
 <213> Ixodes ricinus

<400> 16

```

ctcgtccaca cattctccta aaatgcaagc cttttttttc ccacaagggtg taccgtcgac 60
tacactgagt ctccaataaa tatgttttcc ggtgcaattt accttgacgt ctttgacgcc 120
gtatgtaggg tcagcgtgca tgccttcgtc gtacatatac accctctgac agtagttgct 180
cagtgtttgc atcctaccag gaagcttaga cgaacgtttt attgtttttg tcgtgtatcg 240
ttctctaagg catttgaatt ccggacgggt gtagagggtt ctgacttctc gctggcagca 300
ataagagaac tgatactggc gctcgtcttg catcttgtaa ctcatgaggt atccgtcatc 360
ccatgggcag tccgcag 377

```

<210> 17

<211> 1670

<212> DNA

<213> Ixodes ricinus

<220>

<221> CDS

<222> (54)..(1517)

<400> 17

```

aaggaagaag ttaggcgtag gctttgggaa accgggtcatc ctcgaaacca gag atg 56
                                         Met
                                         1

```

```

tcg gga ctc agc ctg aaa ttg tgg att gta gcg ttc ttt tct ttc tgc 104
Ser Gly Leu Ser Leu Lys Leu Trp Ile Val Ala Phe Phe Ser Phe Cys
          5                      10                      15

```

```

ttg gcc gag aaa gag cat ggg atc gtg tac ccc agg atg ctt gaa agc 152
Leu Ala Glu Lys Glu His Gly Ile Val Tyr Pro Arg Met Leu Glu Ser
          20                      25                      30

```

```

aga gca gca act gga gag aga atg ctt aaa atc aac gat gac ctg acg 200
Arg Ala Ala Thr Gly Glu Arg Met Leu Lys Ile Asn Asp Asp Leu Thr
          35                      40                      45

```

```

ttg acg ctg cag aag agt aag gtc ttc gct gac gac ttt ctc ttc agc 248
Leu Thr Leu Gln Lys Ser Lys Val Phe Ala Asp Asp Phe Leu Phe Ser
          50                      55                      60                      65

```

```

acg acc gac gga att gaa cct att gat tac tac atc aaa gcc gaa gac 296
Thr Thr Asp Gly Ile Glu Pro Ile Asp Tyr Tyr Ile Lys Ala Glu Asp
          70                      75                      80

```

```

gct gaa cgt gac atc tac cac gac gca act cac atg gca tca gta agg 344
Ala Glu Arg Asp Ile Tyr His Asp Ala Thr His Met Ala Ser Val Arg
          85                      90                      95

```

```

gta acg gac gat gat ggc gtg gaa gtg gaa gga att ctt gga gag agg 392
Val Thr Asp Asp Asp Gly Val Glu Val Glu Gly Ile Leu Gly Glu Arg
          100                      105                      110

```

```

ctt cgt gtt aaa cct ttg ccg gca atg gcc cgc agc agc gat ggc ctc 440
Leu Arg Val Lys Pro Leu Pro Ala Met Ala Arg Ser Ser Asp Gly Leu
          115                      120                      125

```

```

aga ccg cat atg ttg tac gaa gtc gac gca cac gaa aac ggc cgg cca 488
Arg Pro His Met Leu Tyr Glu Val Asp Ala His Glu Asn Gly Arg Pro

```

130	135	140	145	
cat gat tat ggt tca ccg aac aca aca aat acc ccc gta gag aga aga	536			
His Asp Tyr Gly Ser Pro Asn Thr Thr Asn Thr Pro Val Glu Arg Arg				
150	155	160		
gct gga ggc aca gaa ccc cag atg tac aag ata cca gcg gaa atc tat	584			
Ala Gly Gly Thr Glu Pro Gln Met Tyr Lys Ile Pro Ala Glu Ile Tyr				
165	170	175		
ccc gaa gtt tac ctt gtg gcg gat agt gcc ttt gcc aaa gaa ttt aac	632			
Pro Glu Val Tyr Leu Val Ala Asp Ser Ala Phe Ala Lys Glu Phe Asn				
180	185	190		
ttt gat gtg aac gcc gtt acg cgt tac ttc gca gtg ctt aca aat gcg	680			
Phe Asp Val Asn Ala Val Thr Arg Tyr Phe Ala Val Leu Thr Asn Ala				
195	200	205		
gct aat ctt agg tat gaa agc ttc aaa tct cca aag gta cag ctc agg	728			
Ala Asn Leu Arg Tyr Glu Ser Phe Lys Ser Pro Lys Val Gln Leu Arg				
210	215	220	225	
atc gtt ggc ata acg atg aac aaa aac cca gca gac gag cca tac att	776			
Ile Val Gly Ile Thr Met Asn Lys Asn Pro Ala Asp Glu Pro Tyr Ile				
230	235	240		
cac aat ata cgg gga tat gag cag tac cgg aat att ttg ttt aag gaa	824			
His Asn Ile Arg Gly Tyr Glu Gln Tyr Arg Asn Ile Leu Phe Lys Glu				
245	250	255		
aca ctg gag gat ttc aac act cag atg aag tca aaa cat ttt tat cgt	872			
Thr Leu Glu Asp Phe Asn Thr Gln Met Lys Ser Lys His Phe Tyr Arg				
260	265	270		
act gcc gat atc gtg ttt ctc gtg aca gca aaa aat atg tcc gaa tgg	920			
Thr Ala Asp Ile Val Phe Leu Val Thr Ala Lys Asn Met Ser Glu Trp				
275	280	285		
gtt ggt agc aca cta caa tca tgg act ggc ggg tac gct tac gta gga	968			
Val Gly Ser Thr Leu Gln Ser Trp Thr Gly Gly Tyr Ala Tyr Val Gly				
290	295	300	305	
aca gcg tgt tcc gaa tgg aaa gta gga atg tgt gaa gac cga ccg aca	1016			
Thr Ala Cys Ser Glu Trp Lys Val Gly Met Cys Glu Asp Arg Pro Thr				
310	315	320		
agc tat tac gga gct tac gtt ttc gcc cat gag ctg gcg cat aat ttg	1064			
Ser Tyr Tyr Gly Ala Tyr Val Phe Ala His Glu Leu Ala His Asn Leu				
325	330	335		
ggt tgt caa cac gat gga gat ggt gcc aat agc tgg gtg aaa ggg cac	1112			
Gly Cys Gln His Asp Gly Asp Gly Ala Asn Ser Trp Val Lys Gly His				
340	345	350		
atc gga tct gcg gac tgc cca tgg gat gac gga tac ctt atg agc tac	1160			
Ile Gly Ser Ala Asp Cys Pro Trp Asp Asp Gly Tyr Leu Met Ser Tyr				
355	360	365		

aag atg gaa gac gag cgc cag tat aag ttt tct ccc tac tgc cag aga 1208
Lys Met Glu Asp Glu Arg Gln Tyr Lys Phe Ser Pro Tyr Cys Gln Arg
370 375 380 385

gaa gtc agg aac ctc tac agg cgt ccg gaa ttc aaa tgc ctc act gaa 1256
Glu Val Arg Asn Leu Tyr Arg Arg Pro Glu Phe Lys Cys Leu Thr Glu
390 395 400

cga aaa gcg aaa aaa aca atc cgc tcg tct aag cta cct ggt gtg atg 1304
Arg Lys Ala Lys Lys Thr Ile Arg Ser Ser Lys Leu Pro Gly Val Met
405 410 415

aca tca tcg agc aac tat tgc cgg agg gtg tac atg tac gaa aaa ggc 1352
Thr Ser Ser Ser Asn Tyr Cys Arg Arg Val Tyr Met Tyr Glu Lys Gly
420 425 430

atg cac gcc gac gag gca tat ggc gtc aag gac tgc agg gta aaa tgc 1400
Met His Ala Asp Glu Ala Tyr Gly Val Lys Asp Cys Arg Val Lys Cys
435 440 445

acc acc aca tca aga atg tat tgg cta ctc ggt gta gtc gac ggt aca 1448
Thr Thr Thr Ser Arg Met Tyr Trp Leu Leu Gly Val Val Asp Gly Thr
450 455 460 465

cct tgc gga aat gga aag gct tgc att ctt ggg aaa tgc agg aac aaa 1496
Pro Cys Gly Asn Gly Lys Ala Cys Ile Leu Gly Lys Cys Arg Asn Lys
470 475 480

atc aaa ata agc aag aag gac tgagagggttg ataatatcaa attaatcatg 1547
Ile Lys Ile Ser Lys Lys Asp
485

atatttcaac cacatgactt cgtgctcaac tggtagcccc aaataaattt taaaaaaaaat 1607
cccaatatgc gtggtagaaa aagcagcaaa caataaaaact tctaaaaatg tcttgcaaaa 1667
atg 1670

<210> 18
<211> 488
<212> PRT
<213> Ixodes ricinus

<400> 18
Met Ser Gly Leu Ser Leu Lys Leu Trp Ile Val Ala Phe Phe Ser Phe
1 5 10 15

Cys Leu Ala Glu Lys Glu His Gly Ile Val Tyr Pro Arg Met Leu Glu
20 25 30

Ser Arg Ala Ala Thr Gly Glu Arg Met Leu Lys Ile Asn Asp Asp Leu
35 40 45

Thr Leu Thr Leu Gln Lys Ser Lys Val Phe Ala Asp Asp Phe Leu Phe
50 55 60

60
 65
 70
 75
 80
 85
 90
 95
 100
 105
 110
 115
 120
 125
 130
 135
 140
 145
 150
 155
 160
 165
 170
 175
 180
 185
 190
 195
 200
 205
 210
 215
 220
 225
 230
 235
 240
 245
 250
 255
 260
 265
 270
 275
 280
 285
 290
 295
 300
 305
 310
 315
 320
 325
 330
 335
 340
 345
 350
 355
 360
 365

Ser	Thr	Thr	Asp	Gly	Ile	Glu	Pro	Ile	Asp	Tyr	Tyr	Ile	Lys	Ala	Glu	
65					70					75					80	
Asp	Ala	Glu	Arg	Asp	Ile	Tyr	His	Asp	Ala	Thr	His	Met	Ala	Ser	Val	
				85					90					95		
Arg	Val	Thr	Asp	Asp	Asp	Gly	Val	Glu	Val	Glu	Gly	Ile	Leu	Gly	Glu	
			100					105					110			
Arg	Leu	Arg	Val	Lys	Pro	Leu	Pro	Ala	Met	Ala	Arg	Ser	Ser	Asp	Gly	
		115					120					125				
Leu	Arg	Pro	His	Met	Leu	Tyr	Glu	Val	Asp	Ala	His	Glu	Asn	Gly	Arg	
		130				135					140					
Pro	His	Asp	Tyr	Gly	Ser	Pro	Asn	Thr	Thr	Asn	Thr	Pro	Val	Glu	Arg	
145					150					155					160	
Arg	Ala	Gly	Gly	Thr	Glu	Pro	Gln	Met	Tyr	Lys	Ile	Pro	Ala	Glu	Ile	
				165					170					175		
Tyr	Pro	Glu	Val	Tyr	Leu	Val	Ala	Asp	Ser	Ala	Phe	Ala	Lys	Glu	Phe	
			180					185					190			
Asn	Phe	Asp	Val	Asn	Ala	Val	Thr	Arg	Tyr	Phe	Ala	Val	Leu	Thr	Asn	
		195					200					205				
Ala	Ala	Asn	Leu	Arg	Tyr	Glu	Ser	Phe	Lys	Ser	Pro	Lys	Val	Gln	Leu	
		210				215					220					
Arg	Ile	Val	Gly	Ile	Thr	Met	Asn	Lys	Asn	Pro	Ala	Asp	Glu	Pro	Tyr	
225					230					235					240	
Ile	His	Asn	Ile	Arg	Gly	Tyr	Glu	Gln	Tyr	Arg	Asn	Ile	Leu	Phe	Lys	
				245					250					255		
Glu	Thr	Leu	Glu	Asp	Phe	Asn	Thr	Gln	Met	Lys	Ser	Lys	His	Phe	Tyr	
			260					265					270			
Arg	Thr	Ala	Asp	Ile	Val	Phe	Leu	Val	Thr	Ala	Lys	Asn	Met	Ser	Glu	
		275					280					285				
Trp	Val	Gly	Ser	Thr	Leu	Gln	Ser	Trp	Thr	Gly	Gly	Tyr	Ala	Tyr	Val	
		290				295					300					
Gly	Thr	Ala	Cys	Ser	Glu	Trp	Lys	Val	Gly	Met	Cys	Glu	Asp	Arg	Pro	
305					310					315					320	
Thr	Ser	Tyr	Tyr	Gly	Ala	Tyr	Val	Phe	Ala	His	Glu	Leu	Ala	His	Asn	
				325					330					335		
Leu	Gly	Cys	Gln	His	Asp	Gly	Asp	Gly	Ala	Asn	Ser	Trp	Val	Lys	Gly	
			340					345					350			
His	Ile	Gly	Ser	Ala	Asp	Cys	Pro	Trp	Asp	Asp	Gly	Tyr	Leu	Met	Ser	
		355					360					365				

Tyr Lys Met Glu Asp Glu Arg Gln Tyr Lys Phe Ser Pro Tyr Cys Gln
 370 375 380

Arg Glu Val Arg Asn Leu Tyr Arg Arg Pro Glu Phe Lys Cys Leu Thr
 385 390 395 400

Glu Arg Lys Ala Lys Lys Thr Ile Arg Ser Ser Lys Leu Pro Gly Val
 405 410 415

Met Thr Ser Ser Ser Asn Tyr Cys Arg Arg Val Tyr Met Tyr Glu Lys
 420 425 430

Gly Met His Ala Asp Glu Ala Tyr Gly Val Lys Asp Cys Arg Val Lys
 435 440 445

Cys Thr Thr Thr Ser Arg Met Tyr Trp Leu Leu Gly Val Val Asp Gly
 450 455 460

Thr Pro Cys Gly Asn Gly Lys Ala Cys Ile Leu Gly Lys Cys Arg Asn
 465 470 475 480

Lys Ile Lys Ile Ser Lys Lys Asp
 485

<210> 19
 <211> 158
 <212> DNA
 <213> Ixodes ricinus

<400> 19
 caccagtgat gcttattggt gactgcact tgttgataat atccggtcgt cgaattgcac 60
 ttcggaactt ccactccaac ttggcgagcc gtggattttg acttctcgtg atgctccacc 120
 agacagttgc aggacttcag ctgcctagat ggagcctt 158

<210> 20
 <211> 146
 <212> DNA
 <213> Ixodes ricinus

<220>
 <221> misc_feature
 <222> (1)...(146)
 <223> n = A,T,C or G

<400> 20
 ctggtgttga actgaaataa ataacaaaaa aatcataaag ntggaggaaa gatgatcgan 60
 tccccgcccc ttgacaatcg tccgataaaa accaactata ttcngtcctt tttacaaaca 120
 attccaantg tctgaccgaa ccgcga 146

<210> 21
 <211> 140
 <212> DNA

<213> Ixodes ricinus

<220>

<221> unsure

<222> (3)

<223> A,C,T or G

<220>

<221> unsure

<222> (10)

<223> A,C,T or G

<220>

<221> unsure

<222> (30)

<223> A,C,T or G

<400> 21

ctnggacgan gtcctatgac ttgcgcttan gtttcttagt cttcttcggt ttcttctttt 60
 tttgcttcgg ttttctcggt ggcgaggtg tatagtcac agtgctcggt ggcccatccg 120
 aatgagttgt caaatgacat 140

<210> 22

<211> 143

<212> DNA

<213> Ixodes ricinus

<400> 22

tgccgaaaaa taacgatgat ttgacgttga ctctgcagaa gagtaagggt ttcaccgaca 60
 gttttctgtt tagcacgacg aaggataacg agcctatcga ttactacgtg agagccgaag 120
 atgccgaacg agacatatat cac 143

<210> 23

<211> 140

<212> DNA

<213> Ixodes ricinus

<220>

<221> misc_feature

<222> (1)...(140)

<223> n = A,T,C or G

<400> 23

tggtgctaca gactcgacgt ttcgagcttg ctgcgcatth maagacaacg cactcacaga 60
 atatttaagt gcgttcgtga wagctgtggg cttacgattg caggcgcttc antcaccagc 120
 tgtgatatta magttcctag 140

<210> 24

<211> 144

<212> DNA

<213> Ixodes ricinus

<400> 24

tcacgatagt tgaaacgttg aaacttgaaa tactcccaca gtcggttgat gcttcagaac 60

tgctaagaac ttcacacttt gcaagaagtw ccaaaatgaa agccgcgatg accgatgatt 120
tagcttccat cttctatcac ttga 144

<210> 25
<211> 95
<212> DNA
<213> Ixodes ricinus

<400> 25
gaccaccccg tccgaacttg ctaaakcaag caatggagtg aggtgttcta tgcggggtga 60
ttacaccaat ggcgctgcgt ggtgcgtggt gattt 95

<210> 26
<211> 1414
<212> DNA
<213> Ixodes ricinus

<220>
<221> CDS
<222> (143)..(1273)

<400> 26
gtagggccgt gcaagcgaag gcagcgaagg ctgcgagtgt acgtgcagtt cggaagtgca 60
atatacctgtt attaagctct aattagcaca ctgtgagtcg atcagaggcc tctcttaacg 120
ccacattgaa aaaggatcca ag atg gag gca agt ctg agc aac cac atc ctt 172
Met Glu Ala Ser Leu Ser Asn His Ile Leu
1 5 10
aac ttc tcc gtc gac cta tac aag cag ctg aaa ccc tcc ggc aaa gac 220
Asn Phe Ser Val Asp Leu Tyr Lys Gln Leu Lys Pro Ser Gly Lys Asp
15 20 25
acg gca gga aac gtc ttc tgc tca cca ttc agt att gca gct gct ctg 268
Thr Ala Gly Asn Val Phe Cys Ser Pro Phe Ser Ile Ala Ala Ala Leu
30 35 40
tcc atg gcc ctc gca gga gct aga ggc aac act gcc aag caa atc gct 316
Ser Met Ala Leu Ala Gly Ala Arg Gly Asn Thr Ala Lys Gln Ile Ala
45 50 55
gcc atc ctg cac tca aac gac gac aag atc cac gac cac ttc tcc aac 364
Ala Ile Leu His Ser Asn Asp Asp Lys Ile His Asp His Phe Ser Asn
60 65 70
ttc ctt tgc aag ctt ccc agt tac gcc cca gat gtg gcc ctg cac atc 412
Phe Leu Cys Lys Leu Pro Ser Tyr Ala Pro Asp Val Ala Leu His Ile
75 80 85 90
gcc aat cgc atg tac tct gag cag acc ttc cat ccg aaa gcg gag tac 460
Ala Asn Arg Met Tyr Ser Glu Gln Thr Phe His Pro Lys Ala Glu Tyr
95 100 105
aca acc ctg ttg caa aag tcc tac gac agc acc atc aag gct gtt gac 508

COULD you tell me what the difference is between a man who has been "in the army" and a man who has been "in the service?"

335 340 345
 gtg gtg aac ttt ttc gtt gac cgc cca ttc atg ttc ttg atc cac agc 1228
 Val Val Asn Phe Phe Val Asp Arg Pro Phe Met Phe Leu Ile His Ser
 350 355 360
 cat gat cca gat gtt gtt ctc ttc atg gga tcc atc cgt gag ctc 1273
 His Asp Pro Asp Val Val Leu Phe Met Gly Ser Ile Arg Glu Leu
 365 370 375
 taaaaagcat attcttaacg gcggccaatc agtctgtgga gttatctctt agtcactaat 1333
 gtgtaacaat tctgcaatat tcagcttggtg tatttcagta acttgctaga tctttgtggtt 1393
 gttgatgtta ggcttcttgc g 1414

<210> 27
 <211> 377
 <212> PRT
 <213> Ixodes ricinus

<400> 27
 Met Glu Ala Ser Leu Ser Asn His Ile Leu Asn Phe Ser Val Asp Leu
 1 5 10 15
 Tyr Lys Gln Leu Lys Pro Ser Gly Lys Asp Thr Ala Gly Asn Val Phe
 20 25 30
 Cys Ser Pro Phe Ser Ile Ala Ala Ala Leu Ser Met Ala Leu Ala Gly
 35 40 45
 Ala Arg Gly Asn Thr Ala Lys Gln Ile Ala Ala Ile Leu His Ser Asn
 50 55 60
 Asp Asp Lys Ile His Asp His Phe Ser Asn Phe Leu Cys Lys Leu Pro
 65 70 75 80
 Ser Tyr Ala Pro Asp Val Ala Leu His Ile Ala Asn Arg Met Tyr Ser
 85 90 95
 Glu Gln Thr Phe His Pro Lys Ala Glu Tyr Thr Thr Leu Leu Gln Lys
 100 105 110
 Ser Tyr Asp Ser Thr Ile Lys Ala Val Asp Phe Ala Gly Asn Ala Asp
 115 120 125
 Arg Val Arg Leu Glu Val Asn Ala Trp Val Glu Glu Val Thr Arg Ser
 130 135 140
 Lys Ile Arg Asp Leu Leu Ala Pro Gly Thr Val Asp Ser Ser Thr Ser
 145 150 155 160
 Leu Ile Leu Val Asn Ala Ile Tyr Phe Lys Gly Leu Trp Asp Ser Gln
 165 170 175
 Phe Lys Pro Ser Ala Thr Lys Pro Gly Asp Phe His Leu Thr Pro Gln

<400> 29
cgtattcttt gaagatttgt atacgaaaca taaattcgtc atgcatactt ttgatgggta 60
cacgacatgc gaagctgccg acaaagaaga ctgggaagat aagaagcacc tagttacggg 120
agtgcgtgga cgggataaac gaaagtacac gtttctacgc aacattctca ccttacaacg 180
gagagtgaga gtttagcaaaa caatgattga gctcgtacgg aacatgtcct gtaggacatt 240
t 241

<210> 30
<211> 313
<212> DNA
<213> Ixodes ricinus

<220>
<221> misc_feature
<222> (1)...(313)
<223> n = A,T,C or G

<400> 30
aagcancggg actacctgct tgaaaacggt gtacggggcaa acttggacgg aaaactccca 60
gatgctactc cagttcctcc cggaagctac acgtacgctg agaatgataa cttcacctgc 120
tattccagaa gtacaccggt tccggatggg gtgaatgttg tataacggct gctgggtgcg 180
gaagactatg atggattacg caaaaaagtt ctaaacgagt tgtttcccat cccggaaagt 240
ctgctgtatg ctgacatgat gcgacttggt gctaagaaag acagagttga tcacactagt 300
ggatgacctg gga 313

<210> 31
<211> 2417
<212> DNA
<213> Ixodes ricinus

<220>
<221> CDS
<222> (218)..(1492)

<400> 31
gtcgtagtcg tagtcgtagt cagttgcgca tgcgcggggc tttcctgtct ttcttgccct 60
tctgcagtcg ttcaccaaca tgtggataca gctccggaga tttgtaaaca aatactgcac 120
ttttaagcaa gacttgatat ttagatcgat atcctcctgt tgtccgtott gattaatcgg 180
ctcttttaggg tttttagaat aggcttttcg gtacgag atg ccc aaa gga aag agg 235
Met Pro Lys Gly Lys Arg
1 5
gga ccc aaa gca ggt ggc gcc gcg cgc ggt ggc cgg tgc gag gcc agc 283
Gly Pro Lys Ala Gly Gly Ala Ala Arg Gly Gly Arg Cys Glu Ala Ser
10 15 20
ctg gct ccg tgc tcc agc gac gag gag tcc aac gca gac acg gcg agc 331
Leu Ala Pro Ser Ser Ser Asp Glu Glu Ser Asn Ala Asp Thr Ala Ser
25 30 35
gtg ctg agc tgc gcc tgc gag tct cgc tgt ggc agt gac ggc acc gtt 379
Val Leu Ser Cys Ala Ser Glu Ser Arg Cys Gly Ser Asp Gly Thr Val

40	45	50	
gga gac cca gaa gcg gag gag gct gtg ctg cat gac gac ttt gaa gac			427
Gly Asp Pro Glu Ala Glu Glu Ala Val Leu His Asp Asp Phe Glu Asp			
55	60	65	70
aaa ctc aag gag gcc atc gac gga gct tcg cag aag agt gcc aaa gga			475
Lys Leu Lys Glu Ala Ile Asp Gly Ala Ser Gln Lys Ser Ala Lys Gly			
	75	80	85
cgg ctg tcg tgc ctg gag gcg att cgc aag gcc ttt tcc acc aaa tac			523
Arg Leu Ser Cys Leu Glu Ala Ile Arg Lys Ala Phe Ser Thr Lys Tyr			
	90	95	100
ctg tac gac ttc ctc atg gac aga ccg agc acg gtg tgc gac ctg gtg			571
Leu Tyr Asp Phe Leu Met Asp Arg Pro Ser Thr Val Cys Asp Leu Val			
	105	110	115
gag cgt ggg gtg cgc aag ggc cga ggg gag gag gcg gcc ctg tgc gcc			619
Glu Arg Gly Val Arg Lys Gly Arg Gly Glu Glu Ala Ala Leu Cys Ala			
	120	125	130
act ctc ggg gcc ctg gcc tgc gtc cag ctc ggg gtc ggg gcc gag gcg			667
Thr Leu Gly Ala Leu Ala Cys Val Gln Leu Gly Val Gly Ala Glu Ala			
	135	140	145
gac gcc ctg ttc gac gcc ctg cgc cag ccg ctc tgc act ttg ctg ctt			715
Asp Ala Leu Phe Asp Ala Leu Arg Gln Pro Leu Cys Thr Leu Leu Leu			
	155	160	165
gac ggg gcc cag ggg ccc tcc ccc agg gcc agg tgt gcc act gcc ctc			763
Asp Gly Ala Gln Gly Pro Ser Pro Arg Ala Arg Cys Ala Thr Ala Leu			
	170	175	180
ggc ctc tgc tgc ttc gtg gtg gac tcg gac aac cag ctg gtg ctg cag			811
Gly Leu Cys Cys Phe Val Val Asp Ser Asp Asn Gln Leu Val Leu Gln			
	185	190	195
ccg tgc atg gag gtg ctc tgg cag gtg gtg ggt gcc aag gcg ggc ccc			859
Pro Cys Met Glu Val Leu Trp Gln Val Val Gly Ala Lys Ala Gly Pro			
	200	205	210
ggc tct ccg gtg ctc cag gca gcg gcc ctg ctc gcc tgg ggc ctc ctg			907
Gly Ser Pro Val Leu Gln Ala Ala Ala Leu Leu Ala Trp Gly Leu Leu			
	215	220	225
ctc agc gtg gct ccc gtc gac cgc ctg ctg gcg ctc acg cgc acg cac			955
Leu Ser Val Ala Pro Val Asp Arg Leu Leu Ala Leu Thr Arg Thr His			
	235	240	245
ctg ccc ccg ctg cag gag ctg ctg gag agc ccc gac ctg gac ctg cgc			1003
Leu Pro Arg Leu Gln Glu Leu Leu Glu Ser Pro Asp Leu Asp Leu Arg			
	250	255	260
att gcg gcc ggg gag gtg atc gcc gtc atg tac gag ggg gcc agg gac			1051
Ile Ala Ala Gly Glu Val Ile Ala Val Met Tyr Glu Gly Ala Arg Asp			
	265	270	275

tac gac gag gac ttt gag gag ccc tcg gag tcc ctg tgt gcc cag ctg 1099
 Tyr Asp Glu Asp Phe Glu Glu Pro Ser Glu Ser Leu Cys Ala Gln Leu
 280 285 290

cgc cag ctg gcc acg gac agc cag aag ttt cgg gcc aag aag gag cgg 1147
 Arg Gln Leu Ala Thr Asp Ser Gln Lys Phe Arg Ala Lys Lys Glu Arg
 295 300 305 310

cgc cag cag cgc tcc acc ttc agg gac gtc tac cgg gcc gtc agg gag 1195
 Arg Gln Gln Arg Ser Thr Phe Arg Asp Val Tyr Arg Ala Val Arg Glu
 315 320 325

ggg gcc tct ccc gac gtg agc gtc aag ttt ggc cgg gaa gtc ctg gaa 1243
 Gly Ala Ser Pro Asp Val Ser Val Lys Phe Gly Arg Glu Val Leu Glu
 330 335 340

ctg gac acc tgg agt cgc aag ctg cag tac gac gct ttc tgc cag ctg 1291
 Leu Asp Thr Trp Ser Arg Lys Leu Gln Tyr Asp Ala Phe Cys Gln Leu
 345 350 355

ctg ggc tcc ggc atg aac ctg cac ctg gcc gtg aac gag ctg ctg agg 1339
 Leu Gly Ser Gly Met Asn Leu His Leu Ala Val Asn Glu Leu Leu Arg
 360 365 370

gac atc ttt gaa ctg ggg cag gtg ctg gca acc gag gac cac att atc 1387
 Asp Ile Phe Glu Leu Gly Gln Val Leu Ala Thr Glu Asp His Ile Ile
 375 380 385 390

tcc aag atc acc aag ttc gaa agg cac atg gtg aac atg gcc agc tgc 1435
 Ser Lys Ile Thr Lys Phe Glu Arg His Met Val Asn Met Ala Ser Cys
 395 400 405

cgg gcc cgc acc aag aca cgc aac cgg ctg agg gac aag cgc gcc gac 1483
 Arg Ala Arg Thr Lys Thr Arg Asn Arg Leu Arg Asp Lys Arg Ala Asp
 410 415 420

gtg gtc gcc tgaacctgag gagggatgct tagctatgca ctgcgcggcc 1532
 Val Val Ala
 425

taccctggcg ggactcgatg coactcacga gtcggcgctc gcaaattcgc cgcccatcgt 1592
 tacgcaatgg gagacaaagc tgcttttggc attaccgttt gaggtcggct ccaaccata 1652
 gatgaatttc ttttttggtg ccgtttctgg gttacatggt ttgggggaag ggagtggaac 1712
 tgtccggttc tttggcacac gtcagggtgc tcttgatgcg cgacgtgctt gtatttggtt 1772
 actgccgaca ccaagcggtt cggcgattcc tggaaaagag tgcctctcgc tcgacgtttg 1832
 gttgttttct gcggtggtcg tcgtcgacct tcgttcgtcc aaagacgccg tccggtttca 1892
 tactcccccc cgcacacata tcgaggccaa ttaaattgct aagggtgccg ttgtcgtgca 1952
 tctggcaggc tcagaagtgg cttatttgct ttttaatttt gccgatgcac gcaaaaattg 2012

tcattttcttg aaagttttctc ttttattgcg tacacaattc aacttttatg taattttctga 2072
 tgggtctgttt tacgtgtgcg tgtgtaaaac gtaactttgg aagaattttt atgcacactg 2132
 aacaaacgct cggctoctggg gttgaaagtg ctcggtgtgt gcatgagcta aagtgcaact 2192
 gctttgttcc gaaggttttc tagtcgccga aatgtacat tgtggacctt gttgcgagag 2252
 accttgggtct tctggggggag ctgctgtagc gtggcaagcc actattttgg gagcgacatt 2312
 gcagagaaaaa tcggctttta gaaaggcacc tgcgcggcga gtggacgttt tttcgtatat 2372
 actgcgaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2417

<210> 32
 <211> 425
 <212> PRT
 <213> Ixodes ricinus

<400> 32

Met Pro Lys Gly Lys Arg Gly Pro Lys Ala Gly Gly Ala Ala Arg Gly
 1 5 10 15
 Gly Arg Cys Glu Ala Ser Leu Ala Pro Ser Ser Ser Asp Glu Glu Ser
 20 25 30
 Asn Ala Asp Thr Ala Ser Val Leu Ser Cys Ala Ser Glu Ser Arg Cys
 35 40 45
 Gly Ser Asp Gly Thr Val Gly Asp Pro Glu Ala Glu Glu Ala Val Leu
 50 55 60
 His Asp Asp Phe Glu Asp Lys Leu Lys Glu Ala Ile Asp Gly Ala Ser
 65 70 75 80
 Gln Lys Ser Ala Lys Gly Arg Leu Ser Cys Leu Glu Ala Ile Arg Lys
 85 90 95
 Ala Phe Ser Thr Lys Tyr Leu Tyr Asp Phe Leu Met Asp Arg Pro Ser
 100 105 110
 Thr Val Cys Asp Leu Val Glu Arg Gly Val Arg Lys Gly Arg Gly Glu
 115 120 125
 Glu Ala Ala Leu Cys Ala Thr Leu Gly Ala Leu Ala Cys Val Gln Leu
 130 135 140
 Gly Val Gly Ala Glu Ala Asp Ala Leu Phe Asp Ala Leu Arg Gln Pro
 145 150 155 160
 Leu Cys Thr Leu Leu Leu Asp Gly Ala Gln Gly Pro Ser Pro Arg Ala
 165 170 175
 Arg Cys Ala Thr Ala Leu Gly Leu Cys Cys Phe Val Val Asp Ser Asp
 180 185 190

Asn	Gln	Leu	Val	Leu	Gln	Pro	Cys	Met	Glu	Val	Leu	Trp	Gln	Val	Val	
	195						200					205				
Gly	Ala	Lys	Ala	Gly	Pro	Gly	Ser	Pro	Val	Leu	Gln	Ala	Ala	Ala	Leu	
	210					215					220					
Leu	Ala	Trp	Gly	Leu	Leu	Leu	Ser	Val	Ala	Pro	Val	Asp	Arg	Leu	Leu	
	225				230					235					240	
Ala	Leu	Thr	Arg	Thr	His	Leu	Pro	Arg	Leu	Gln	Glu	Leu	Leu	Glu	Ser	
				245					250					255		
Pro	Asp	Leu	Asp	Leu	Arg	Ile	Ala	Ala	Gly	Glu	Val	Ile	Ala	Val	Met	
		260						265					270			
Tyr	Glu	Gly	Ala	Arg	Asp	Tyr	Asp	Glu	Asp	Phe	Glu	Glu	Pro	Ser	Glu	
	275					280						285				
Ser	Leu	Cys	Ala	Gln	Leu	Arg	Gln	Leu	Ala	Thr	Asp	Ser	Gln	Lys	Phe	
	290					295					300					
Arg	Ala	Lys	Lys	Glu	Arg	Arg	Gln	Gln	Arg	Ser	Thr	Phe	Arg	Asp	Val	
	305				310					315					320	
Tyr	Arg	Ala	Val	Arg	Glu	Gly	Ala	Ser	Pro	Asp	Val	Ser	Val	Lys	Phe	
				325					330					335		
Gly	Arg	Glu	Val	Leu	Glu	Leu	Asp	Thr	Trp	Ser	Arg	Lys	Leu	Gln	Tyr	
			340					345					350			
Asp	Ala	Phe	Cys	Gln	Leu	Leu	Gly	Ser	Gly	Met	Asn	Leu	His	Leu	Ala	
		355					360					365				
Val	Asn	Glu	Leu	Leu	Arg	Asp	Ile	Phe	Glu	Leu	Gly	Gln	Val	Leu	Ala	
	370					375					380					
Thr	Glu	Asp	His	Ile	Ile	Ser	Lys	Ile	Thr	Lys	Phe	Glu	Arg	His	Met	
	385				390					395					400	
Val	Asn	Met	Ala	Ser	Cys	Arg	Ala	Arg	Thr	Lys	Thr	Arg	Asn	Arg	Leu	
			405						410					415		
Arg	Asp	Lys	Arg	Ala	Asp	Val	Val	Ala								
		420						425								

<210> 33
 <211> 933
 <212> DNA
 <213> Ixodes ricinus

<220>
 <221> CDS
 <222> (32)..(850)

<400> 33

gattgggaac ctcctattcc tcacttgaaa c atg gct gga ctc cgc tcc tgc	52
Met Ala Gly Leu Arg Ser Cys	
1 5	
atc ctc ctg gct ctt gcc act agt gcc ttc gcc ggc tac ctt cac ggt	100
Ile Leu Leu Ala Leu Ala Thr Ser Ala Phe Ala Gly Tyr Leu His Gly	
10 15 20	
ggc ctt acc cac ggc gct ggg tac ggt tac ggt gtc ggc tac ggt tcc	148
Gly Leu Thr His Gly Ala Gly Tyr Gly Tyr Gly Val Gly Tyr Gly Ser	
25 30 35	
ggc ctt ggc tat ggc ctt ggc tac ggt tcc ggc ctt ggc tat gga cat	196
Gly Leu Gly Tyr Gly Leu Gly Tyr Gly Ser Gly Leu Gly Tyr Gly His	
40 45 50 55	
gct gtt ggc ctt gga cac ggc ttt ggc tat tct ggt ctg acc ggc tac	244
Ala Val Gly Leu Gly His Gly Phe Gly Tyr Ser Gly Leu Thr Gly Tyr	
60 65 70	
agt gtg gct gcc cca gct agc tac gcc gtt gct gct cca gcc gtc agc	292
Ser Val Ala Ala Pro Ala Ser Tyr Ala Val Ala Ala Pro Ala Val Ser	
75 80 85	
cgc acc gtt tcc act tac cac gct gct cca gct gtg gcc acc tac gcc	340
Arg Thr Val Ser Thr Tyr His Ala Ala Pro Ala Val Ala Thr Tyr Ala	
90 95 100	
gct gct cct gtc gcc acc tat gct gtt gct cca gct gtc act agg gtt	388
Ala Ala Pro Val Ala Thr Tyr Ala Val Ala Pro Ala Val Thr Arg Val	
105 110 115	
tcc ccc gtt cgc gcc gcc cca gct gtg gcc acg tac gcc gcc gct cca	436
Ser Pro Val Arg Ala Ala Pro Ala Val Ala Thr Tyr Ala Ala Ala Pro	
120 125 130 135	
gtc gcc acc tac gcc gct gct cca gct gtg acc agg gtg tcc acc att	484
Val Ala Thr Tyr Ala Ala Ala Pro Ala Val Thr Arg Val Ser Thr Ile	
140 145 150	
cac gct gcc ccg gct gtg gcc aat tac gcc gtc gct cca gtc gcc acc	532
His Ala Ala Pro Ala Val Ala Asn Tyr Ala Val Ala Pro Val Ala Thr	
155 160 165	
tat gcc gct gct cca gct gtg acc agg gtg tcc acc atc cac gcc gct	580
Tyr Ala Ala Ala Pro Ala Val Thr Arg Val Ser Thr Ile His Ala Ala	
170 175 180	
cca gcc gtg gct agc tac cag acc tac cac gct cca gct gtc gcc act	628
Pro Ala Val Ala Ser Tyr Gln Thr Tyr His Ala Pro Ala Val Ala Thr	
185 190 195	
gtg gct cat gct cca gct gtg gcc agc tac cag acc tac cac gct gcc	676
Val Ala His Ala Pro Ala Val Ala Ser Tyr Gln Thr Tyr His Ala Ala	
200 205 210 215	
cca gcc gtg gct acc tac gcc cat gcc gct ccc gtc tac ggc tat ggt	724

Pro Ala Val Ala Thr Tyr Ala His Ala Ala Pro Val Tyr Gly Tyr Gly
220 225 230

gtc ggt acc ctc gga tat ggt gtc ggc cac tac ggc tac gga cac ggt 772
Val Gly Thr Leu Gly Tyr Gly Val Gly His Tyr Gly Tyr Gly His Gly
235 240 245

ctt ggc agc tac ggc ctg aac tac ggt tac ggc ctc ggc acc tac ggt 820
Leu Gly Ser Tyr Gly Leu Asn Tyr Gly Tyr Gly Leu Gly Thr Tyr Gly
250 255 260

gac tac acc acc ctt ctc cgc aag aag aag taaatggcac atctcaagag 870
Asp Tyr Thr Thr Leu Leu Arg Lys Lys Lys
265 270

agcccattgg actgccatcg acattcttct tcaataaaaag agcccgaaga tggcattatt 930

ttt 933

<210> 34
<211> 273
<212> PRT
<213> Ixodes ricinus

<400> 34
Met Ala Gly Leu Arg Ser Cys Ile Leu Leu Ala Leu Ala Thr Ser Ala
1 5 10 15

Phe Ala Gly Tyr Leu His Gly Gly Leu Thr His Gly Ala Gly Tyr Gly
20 25 30

Tyr Gly Val Gly Tyr Gly Ser Gly Leu Gly Tyr Gly Leu Gly Tyr Gly
35 40 45

Ser Gly Leu Gly Tyr Gly His Ala Val Gly Leu Gly His Gly Phe Gly
50 55 60

Tyr Ser Gly Leu Thr Gly Tyr Ser Val Ala Ala Pro Ala Ser Tyr Ala
65 70 75 80

Val Ala Ala Pro Ala Val Ser Arg Thr Val Ser Thr Tyr His Ala Ala
85 90 95

Pro Ala Val Ala Thr Tyr Ala Ala Ala Pro Val Ala Thr Tyr Ala Val
100 105 110

Ala Pro Ala Val Thr Arg Val Ser Pro Val Arg Ala Ala Pro Ala Val
115 120 125

Ala Thr Tyr Ala Ala Ala Pro Val Ala Thr Tyr Ala Ala Ala Pro Ala
130 135 140

Val Thr Arg Val Ser Thr Ile His Ala Ala Pro Ala Val Ala Asn Tyr
145 150 155 160

Ala Val Ala Pro Val Ala Thr Tyr Ala Ala Ala Pro Ala Val Thr Arg

	165		170		175
Val Ser Thr	Ile His Ala Ala Pro	Ala Val Ala Ser Tyr	Gln Thr Tyr		
	180	185	190		
His Ala Pro	Ala Val Ala Thr Val	Ala His Ala Pro	Ala Val Ala Ser		
	195	200	205		
Tyr Gln Thr	Tyr His Ala Ala Pro	Ala Val Ala Thr	Tyr Ala His Ala		
	210	215	220		
Ala Pro Val	Tyr Gly Tyr Gly Val	Gly Thr Leu Gly	Tyr Gly Val Gly		
	225	230	235	240	
His Tyr Gly	Tyr Gly His Gly Leu	Gly Ser Tyr Gly	Leu Asn Tyr Gly		
	245	250	255		
Tyr Gly Leu	Gly Thr Tyr Gly Asp	Tyr Thr Thr Leu	Leu Arg Lys Lys		
	260	265	270		

Lys

165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270